**IN THE CLAIMS:**

1. (Canceled).

2. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 40, wherein the selected monoclonal antibody, or fragment thereof, is coupled to a diagnostically, therapeutically or cosmetically active substance.

3-8. (Canceled).

9. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 40, wherein the ability of the selected monoclonal antibody, or fragment thereof, to bind to the epitope has been further selected dependent upon ion strength.

10. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 9, wherein:

a first ion strength at which the selected monoclonal antibody binds the epitope is different than a second ion strength at which the bond between the selected monoclonal antibody and the epitope is broken.

11-12. (Canceled).

13. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 40, wherein the selected monoclonal antibody, or fragment thereof, is selected from a group consisting of a F(ab), F(ab)', $F(ab)'_2$ and an scFv.

14. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 40, wherein the selected monoclonal antibody, or fragment thereof, is capable of use in a targeted or temporary diagnostic, therapeutic and cosmetic treatment of externally accessible parts of the human or the animal body.

15. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 14, wherein said targeted or temporary diagnostic, therapeutic or cosmetic treatment comprises a treatment of an oral cavity of the human or the animal body.

16. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 15, wherein the selected monoclonal antibody, or fragment thereof, is capable of bleaching teeth and molars included in said oral cavity.

17. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 15, wherein the selected monoclonal antibody, or fragment thereof, is capable of detecting plaque in said oral cavity.

18. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 15, wherein the selected monoclonal antibody, or fragment thereof, is capable of removing plaque in said oral cavity.

19. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 14, wherein said targeted or temporary diagnostic, therapeutic or cosmetic treatment comprises a treatment for fighting infections in externally accessible parts of the human or the animal body.

20. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 2, wherein the diagnostically, therapeutically or cosmetically active substance comprises an enzyme.

21. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 20, wherein the enzyme is selected from the group consisting of an oxidase, a peroxidase, a protease, a cell-wall lysing enzyme and a plaque matrix inhibitor.

22. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 21, wherein the enzyme comprises an oxidase selected from the group consisting of glucose oxidase, lactase oxidase and uric acid oxidase.

23. (Withdrawn) The antibody, or fragment thereof, of claim 21, wherein the enzyme comprises an oxidase chosen from a group consisting of glucose oxidase, lactase oxidase and uric acid oxidase.

24. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 21, wherein the enzyme comprises the protease and is selected from the group consisting of papain, pepsin, trypsin, ficin and bromelin.

25. (Withdrawn) The antibody, or fragment thereof, of claim 21, wherein the enzyme comprises lysozyme.

26. (Withdrawn) The antibody, or fragment thereof, of claim 21, wherein the enzyme comprises a plaque matrix inhibitor chosen from a group consisting of dextranase and mutanase.

27. (Previously presented) The selected monoclonal antibody, or fragment thereof of claim 2, wherein the diagnostically, therapeutically or cosmetically active substance comprises a fluorescent or radioactive substance.

28. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 2, wherein the selected monoclonal antibody, or fragment thereof, is capable of binding an epitope of a pathogenic micro-organism or other pathogenic compound.

29. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 28, wherein said pathogenic micro-organism is selected from the group consisting of Actinomyces actinomycetem comitans, Porphyromonas gingivalis, Prevotella intermedia, Streptococcus mutans, Bacteroides forsythus, Eikenella corrodens, Treponema denticola, Campylobacter lectus, and Fusobacterium nucleatum.

30. (Previously presented) A composition comprising:
at least one selected monoclonal antibody, or fragment thereof, of claim 40; and
at least one physiologically acceptable diluent, solvent or carrier.

31. (Previously presented) The composition of claim 30, wherein the composition is selected from the group consisting of a teeth cleaning agent, mouthwash, mouth spray, chewing tablet, chewing gum, cream and ointment.

32-34. (Canceled).

35. (Currently amended) The selected monoclonal antibody, or fragment thereof, of claim 10, wherein the first ion strength is ~~about~~ 1 M NaCl and the second ion strength is ~~about~~ 0 M.

36-39. (Canceled).

40. (Currently amended) A selected monoclonal antibody, or fragment thereof, wherein:
the selected monoclonal antibody, or fragment thereof, has been selected for its ability to bind to an epitope at a first pH of ~~between about 4-6 or 8-~~ 8.5; and
the selected monoclonal antibody, or fragment thereof, has also been selected such that the bond of the selected monoclonal antibody, or fragment thereof, to the epitope is broken at a second pH of ~~about~~ 7.

41. (Canceled).

42. (Currently amended) A selected monoclonal antibody, or fragment thereof, wherein:

the selected monoclonal antibody, or fragment thereof, has been selected for its ability to bind an epitope at a first pH of ~~between about 8~~ 8.5; and

the selected monoclonal antibody, or fragment thereof, has also been selected such that the bond of the selected monoclonal antibody, or fragment thereof, to the epitope is broken at a second pH of ~~about~~ 4.5~~-6~~ and an ion strength of 1M NaCl.

43. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 40, wherein the epitope is of a *Staphylococcus epidermidis* origin.

44. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 40, wherein the first pH is about 8.5.

45. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 42, wherein the first pH is about 8.5.

46. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 42, wherein the second pH is about 4.5.

47. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 45, wherein the second pH is about 4.5

48. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 42, wherein the ability of the selected monoclonal antibody, or fragment thereof, to bind to the epitope has been further selected dependent upon ion strength.

49. (Previously presented) The selected monoclonal antibody, or fragment thereof, of claim 48, wherein the ion strength is equivalent to about 1M NaCl.